

**DRAFT SCREENING SITE INVESTIGATION  
FOR THE  
PENNSYLVANIA SMELTING AND REFINING COMPANY SITE  
ONTARIO STREET AND CASPER STREET  
PHILADELPHIA, PENNSYLVANIA  
ECKEL SITE NUMBER 65**

Prepared for

U.S. Environmental Protection Agency Region 3  
Hazardous Site Cleanup Division  
1650 Arch Street  
Philadelphia, PA 19103

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Work Assignment No. 048-PAPA-03ZZ  
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## **1.0 INTRODUCTION**

Under Remedial Action Contract (RAC) No. 68-S7-3002, Work Assignment No. 048-PAPA-03ZZ, U.S. Environmental Protection Agency (EPA) Region 3 tasked Tetra Tech, Inc. (Tt), to assist EPA Region 3 in the assessment of properties suspected to have been former lead smelter foundries. Tt subcontracted completion of this work assignment to Tetra Tech EM Inc. (Tetra Tech).

Former lead smelter sites nationwide were identified in an April 2001 article published in the American Journal of Public Health by Eckel, and others (Eckel study) (Reference [Ref.] 1). The majority of these lead smelters operated prior to 1964 and closed before the current environmental regulations were instituted. As part of the Eckel study, soil samples were collected from several of the identified former lead smelter properties. Results from the analysis of these soil samples indicated that concentrations of lead exceeded EPA's recommended screening level for lead in residential soils. The results of the Eckel study indicate that the air disposition of lead into soils from the former smelter operations may present an ongoing public health concern due to exposure of residential populations, especially children, located in the vicinity of these former lead smelters, to soils containing elevated concentrations of lead (Refs. 1, 2, and 3).

The Eckel study identified 77 properties that may have been formerly used as lead smelters within EPA Region 3 (Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, and West Virginia). EPA Region 3 is currently investigating these 77 properties. The objective of EPA's investigation of these properties is to (1) determine the potential for lead-contaminated soil to be present at the former lead smelter site or nearby properties (2) identify any populations that may be at risk to exposure to this soil, and (3) determine if soil sampling is warranted at any of these sites or nearby properties.

The following activities were completed as part of the initial screening investigation of each of these former lead smelter sites: (1) verify the former lead smelter address listed in the Eckel

study through historical Sanborn fire insurance maps, tax parcel information, and/or contacting local agencies, (2) determine if the site is listed in EPA's Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) database, (3) determine through census information and existing maps the number of schools, daycare centers or recreational parks that exist near the former lead smelter site, (4) determine the population residing within a 4-mile radius of the site, (5) conduct a windshield reconnaissance of the site and surrounding area to document the current land use, identify any exposed soil and verify the existence of any schools, daycare centers or parks in the immediate area, and (6) review all information acquired to determine if the collection and analysis of soil samples is warranted at the site or at any nearby property.

This report summarizes the findings of the tasks outlined above for the former lead smelter known as the Pennsylvania Smelting and Refining Company site located at Ontario Street and Casper Street, Philadelphia, Pennsylvania, 19134. Each former smelter property was given a number in Eckel's study. The Eckel study number for this site is 65 (Ref. 1).

## **2.0 SITE LOCATION**

The former Pennsylvania Smelting and Refining Company facility was located at Ontario Street and Casper Street, Philadelphia, Pennsylvania, 19134. The geographic coordinates of the former Pennsylvania Smelting and Refining Company facility are 39.981242 north latitude and 75.092989 west longitude on the Philadelphia, Pennsylvania-New Jersey Quadrangle, 7.5 minute series, United States Geological Survey topographic map (see Appendix A, Figure 1). The site is not currently listed in EPA's CERCLIS database (Ref. 4). An aerial photograph of the vicinity of the former lead smelter site has been included in Appendix A, Figure 2. This aerial photograph reveals the exposed soils and any identified areas of potential concern such as schools, daycare centers, or parks located within a half-mile radius of the site.

### **3.0 SITE OBSERVATIONS**

On December 16, 2005, Tetra Tech completed a non-sampling windshield reconnaissance of the Pennsylvania Smelting and Refining Company site and surrounding area. A photographic record of the current site conditions is included in Appendix B. Figure 3, shows the current layout of the site and surrounding area as observed during Tetra Tech's site reconnaissance. The following observations were recorded:

- The exact location of the former lead smelter property could not be identified. In the vicinity of the former lead smelter, there is an old structure located at 3010 Ontario Street. Adjacent to the structure is the Neatsfoot Oil Refinery and a junkyard. The site vicinity is located in a primarily industrial area of Philadelphia.
- Industrial properties were identified in all directions of the site.
- Exposed soils were identified in the vicinity of the site. All exposed soils are part of associated industrial facilities.
- The Delaware River, a tributary to the Delaware Bay, is located approximately one-quarter mile south of the site vicinity.
- No schools, parks, daycare facilities or residents were identified in the immediate vicinity of the site.

#### 4.0 POTENTIAL TARGETS

Potential targets identified that may be exposed to lead-contaminated soils remaining in the vicinity of the former Pennsylvania Smelting and Refining Company site include residents located in the area of the site. The population within a 4-mile radius of the site is summarized in the table below (Ref. 5).

**Population within a Four-mile Radius of the Site**

<b>Distance Ring (miles)</b>	<b>Population (number of persons)</b>
0.0 to 0.25	288
0.25 to 0.5	2,621
0.5 to 1.0	15,092
1.0 to 2.0	69,442
2.0 to 3.0	90,966
3.0 to 4.0	104,818

Source: U.S. Department of Commerce. Landview V Environmental Mapping Software based on the Bureau of Census 2000 Population Data. December 15, 2005.

No schools, parks, daycare facilities or residents were identified in the immediate vicinity of the site. One school has been identified within one-half mile of the site. The Martin School is located greater than one-quarter mile northwest of the former lead smelter. Unidentified baseball fields are located greater than one-quarter mile west of the site.

#### 5.0 FINDINGS AND RECOMMENDATIONS

The property is located in a primarily industrial area of Philadelphia. Exposed soils were observed in areas directly surrounding the site associated with industrial facilities. Based on the heavy industrial usage in the area of the former lead smelter and the lack of targets in the immediate vicinity, Tetra Tech does not recommend soil sampling at this time.

## REFERENCES

1. Eckel, W.P., Rabinowitz, M.B., Foster, G.D. American Journal of Public Health. "Discovering Unrecognized Lead-Smelting Sites by Historical Methods". April 2001.
2. Pennsylvania Department of Health. Suspected Former Lead Smelter Sites: A Potential Risk Factor for Childhood Lead Poisoning. August 2004.
3. U.S. Environmental Protection Agency (EPA). Revised Interim Soil Lead Guidance for CERCLA Sites and RCRA Corrective Action Facilities. OSWER Directive 9355.4-12. July 14, 1994.
4. U.S. EPA. Comprehensive Environmental Response, Compensation, and Liability Act Information System (CERCLIS) database. On-Line Address: <http://cfpub.epa.gov/supercpad/cursites/srchsites.cfm>
5. U.S. Census Bureau. State and County Quick Facts. Accessed On-Line on December 15, 2005. On-Line Address: [quickfacts.census.gov/qfd/states/42.html](http://quickfacts.census.gov/qfd/states/42.html).

## **Appendix A**

### **Figures**







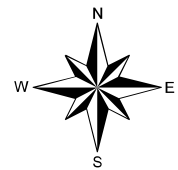


#### Legend

- ✕ Approximate Site Location
- ▲ School
- 0.5-Mile Radius
- Parks

0 400 800  
Feet  
Scale in Feet

Pennsylvania Smelting and Refining Company  
Ontario Street and Casper Street  
Philadelphia, Pennsylvania  
Eckel Site No. 65



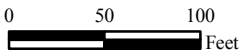
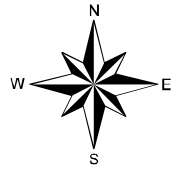


**Figure 2**  
Aerial Photograph



Source: Modified from USGS, 2002, and ESRI, 2005.





 <p>Scale in Feet</p>	<p>Pennsylvania Smelting and Refining Ontario Street and Casper Street Philadelphia, Pennsylvania Eckel Site No. 65</p>	
	<p><b>Figure 3</b> Site Layout Map</p> <p>Source: Modified from the City of Philadelphia 1996, 2000, and 2003.</p>	 <p><b>TETRA TECH</b> EM INC.</p>

**Appendix B**  
**Photographic Documentation**



## *Photographic Documentation*

**Site Name:** Pennsylvania Smelting and Refining Company –  
Eckel Number 65

**Prepared by:** Tetra Tech EM Inc.

**Location:** Ontario Street and Casper Street, Philadelphia,  
Pennsylvania

**Photographer:** [REDACTED]

### **Photograph No. 1**

**Photograph Date:**  
September 6, 2005

**Description:** Unoccupied  
industrial facility located at 3010  
Ontario Street.



### **Photograph No. 2**

**Photograph Date:**  
September 6, 2005

**Description:** Garage-like  
building located at 3010 Ontario  
Street.

